

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE SPECIFICATION

The specification has been amended to correct some minor typographical errors of which the undersigned has become aware.

No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered.

THE CLAIMS

Claims 9 and 12 have been amended only to correct minor clerical errors so as to accord with the disclosure in the specification at, for example, the bottom of page 23.

In addition, claims 15-18 have been added to recite the alternative embodiments set forth in claims 9 and 12.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

It is respectfully submitted, moreover, that the amendments to the claims are not related to patentability and do not narrow the scope of the claims either literally or under the doctrine of equivalents.

THE PRIOR ART REJECTIONS

Claims 9 and 12 were rejected under 35 USC 102 as being anticipated by US 2001/0036221 ("Sato"), and claims 10-11 and 13-14 were rejected under 35 USC 103 as being obvious over Sato in view of JP 6-90222 ("JP '222"). These rejections, however, are respectfully traversed.

It is respectfully submitted that the cited references do not disclose, teach or suggest the feature of the present invention as recited in claims 9 and 12 whereby a candidate of a toggle point existing in a carrier of a received signal is detected by correlating between the carrier of the received signal and a pre-held expected signal which includes a waveform of the toggle point and has a length corresponding to 2 chip-times of a spread code or has a shorter length than 2 chip-times of the spread code.

Advantages of the detection and use of the candidate of the toggle point in accordance with the claimed present invention are described in the specification at, for example, page 28, line 24 to page 29, line 16, and include the possibility of greatly increasing the allowable value of the carrier phase thereby enabling implementation of a very low-priced transmission or communication system.

Significantly, the claimed present invention utilizes the particularly advantageous relationship between the spread code

and a length of an expected signal which is used to correlate with the carrier of the received signal in order to detect a candidate of a toggle point in the carrier of the received signal (wherein the candidate toggle point is used to calculate a shift amount of the spread code when demodulating the received carrier signal). This relationship is uniquely based on consideration and analysis of signals to use for the correlation, the implementation of which is explained in the specification with reference to Figs. 2-9.

It is respectfully submitted that the cited prior art references do not disclose, teach or suggest using an expected signal for correlating with a carrier of a received signal which has a length corresponding to 2 chip-times of a spread code or has a shorter length than 2 chip-times of the spread code, as according to the claimed present invention. Indeed, the cited prior art references do not even disclose a relationship between the spread code and a length of an expected signal which is used to correlate with the carrier of a received signal in order to detect a candidate of a toggle point in the carrier of the received signal.

The Examiner cites Sato to allegedly show a device for spread spectrum communications wherein a pre-held expected signal is a signal including a waveform of the toggle point and has a length corresponding to 2 chip-times of a spread code or has a

shorter length than the spread code. The Examiner refers to paragraphs 0012-0014 of Sato and states that the Walsh code has a shorter length than the Gold spread code, since the Walsh code has a symbol length of 1 and the Gold code has a symbol length of 10 ms, noting that one chip equals 60 ns (see page 2 of the Office Action).

It is respectfully submitted, however, that the Walsh code mentioned in Sato does not include a waveform of a toggle point expected to be in the received carrier signal and a length corresponding to 2 chip-times of the spread code or a shorter length than 2 chip-times of the spread code. Regardless of any correspondence between a chip and a unit of time in Sato (one chip equals 60 ns in paragraph 0014), there is no disclosed correspondence or relationship between a period of 1 symbol (the Walsh code) and the length of 2 chip-times of a spread code (the Gold code), as in the case of the claimed present invention.

In short, it is respectfully submitted that Sato does not at all disclose any relationship between the chip-times of a spread code and a length of an expected signal which is used to correlate with the carrier of a received signal in order to detect a candidate of a toggle point in the carrier of the received signal, and that this reference therefore clearly does not at all anticipate or render obvious the claimed present invention recited in independent claims 9 and 12.

Accordingly, it is respectfully submitted that independent claims 9 and 12, and claims 10, 11, 13, 14 and 15-18 respectively depending therefrom, all clearly patentably distinguish over Sato and JP '222, taken singly or in combination, under 35 USC 102 and 35 USC 103.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

/Douglas Holtz/

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